

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously presented) A balloon catheter cover comprising a tubular elastic fabric structure, wherein the tubular elastic fabric structure covers the outer surface of a balloon catheter, and further wherein the tubular elastic structure is formed of interconnected circumferential and longitudinal yarns, the circumferential yarns having stretch and recovery properties and the longitudinal yarns having more resistance to stretch than the circumferential yarns.
2. (Previously presented) The balloon catheter cover of claim 1 wherein the change in length in the longitudinal direction over the full range of stretch and recovery in the circumferential direction is less than 0.25 times the change in the diameter over the full range of stretch and recovery.
3. (Original) The balloon catheter cover of claim 2 wherein the circumferential yarns have an elongation at break of more than 300%.
4. (Original) The balloon catheter cover of claim 3 wherein the longitudinal yarns have an elongation at break of less than 30%.
5. (Previously presented) The balloon catheter cover of claim 1 wherein the degree of stretch in the circumferential direction is such that the diameter of the cover when stretched is more than 2 times the diameter of the cover when collapsed.

6. (Previously presented) The balloon catheter cover of claim 1 wherein the degree of stretch is such that the diameter of the cover when stretched is more than 3 times the diameter of the cover when collapsed.

7. (Original) The balloon catheter cover of claim 1 wherein the longitudinal yarns are positioned at about zero degrees to the balloon axis and the circumferential yarns are positioned at an angle \emptyset to the axis of at least 70°.

8. (Original) The balloon catheter cover of claim 7 wherein the angle \emptyset is greater than 85°.

9. (Previously presented) The balloon catheter cover of claim 8 wherein the angle \emptyset is about 90°.

10. (Previously presented) The balloon catheter cover of claim 1 wherein the fabric structure is a triaxial braid wherein the circumferential yarns are elastomeric braiding yarns and the longitudinal yarns are axial yarns that resist stretching.

11. (Original) The balloon catheter cover of claim 1 wherein the fabric structure is a woven fabric wherein the circumferential yarns are filling yarns and the longitudinal yarns are warp yarns.

12. (Original) The balloon catheter cover of claim 1 wherein the tubular structure is made from a fabric selected from the group of fabrics consisting of non-woven fabrics and those made by weft knitting and by warp knitting.

13. (Original) The balloon catheter cover of claim 12 wherein the tubular structure is made by sewing edges of a flat fabric together so as to make a tube having a longitudinal dimension and a circumferential dimension, the edges being sewn together being along the longitudinal dimension.

14. (Previously presented) The balloon catheter cover of claim 1 wherein the circumferential yarns are elastomeric yarns selected from the group consisting of yarns made from spandex fibers, fibers of polyurethane polymers, fibers of silicone elastomers, fibers of polyester/polyether block copolymers, fibers of polypropylene, fibers of fluoroelastomers, fibers of elastomeric polyolefins, and fibers of combinations thereof.

15. (Previously presented) The balloon catheter cover of claim 14 wherein the elastomeric yarns are spandex fibers comprising segmented polyurethanes, wherein the segmented polyurethanes are selected from the group consisting of polyetherurethaneurea and polyesterurethaneurea block copolymers, or combinations thereof.

16. (Previously presented) The balloon catheter cover of claim 14 wherein the elastomeric yarns are covered.

17. (Previously presented) The balloon catheter cover of claim 1 wherein the longitudinal yarns are selected from yarns made from fibers of polyesters; polyamides; aramids; polyolefins; polyglycolic acids; polylactic acids; fluoropolymers; and combinations thereof.

Claims 18-31 (Cancelled)

32. (Previously presented) The balloon catheter cover of claim 1 in which the properties vary along the length of the tubular elastic fabric structure.

33. (Previously presented) A balloon catheter cover of claim 32 in which the tubular elastic fabric structure is a braided structure and in which the varied properties along the length of the tubular elastic fabric structure are produced by varying the braiding yarn spacing along the length of the tubular elastic fabric structure.

34. (Original) A balloon catheter cover of claim 1 in which the shape is not cylindrical.

35. (Previously presented) The balloon catheter cover of claim 34 in which the non-cylindrical shape is obtained by forming the cover over a shaped mandrel.

36. (New) The balloon catheter cover of claim 1 wherein the tubular elastic fabric structure has a thickness of less than about 0.25 mm.

37. (New) The balloon catheter cover of claim 1 wherein the tubular elastic fabric structure has a diameter of less than about 1.3 mm.

38. (New) The balloon catheter cover of claim 1 wherein the tubular elastic fabric structure can withstand at least 2 atmospheres of internal pressure.